

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. Where claims have been amended and/or canceled, such amendments and/or cancellations are done without prejudice and/or waiver and/or disclaimer to the claimed and/or disclosed subject matter, and Applicants reserve the right to claim this subject matter and/or other disclosed subject matter in a continuing application or otherwise.

1. (currently amended) A method for protecting data stored in a RAID-configured storage system from uncorrectable media errors, the RAID-configured storage system having a plurality of storage units, the method comprising:

associating n data information disk sectors with c redundancy information disk sectors, the c redundancy information disk sectors being based on the n data information disk sectors, and n and c being integer value numbers greater than zero; and

writing the n data information disk sectors with c redundancy information disk sectors on the same storage unit.

2. (original) The method according to claim 1, wherein the RAID-configured storage system is configured as a RAID 6 storage system.

3. (original) The method according to claim 1, wherein the RAID-configured storage system is configured as a RAID 5 storage system.

4. (original) The method according to claim 1, wherein the RAID-configured storage system is configured as a RAID 51 storage system.

5. (original) The method according to claim 1, wherein the RAID-configured storage system is configured as a RAID $3 + 3$ storage system.

6. (original) The method according to claim 1, wherein the RAID-configured storage system is configured as a RAID $N + 3$ storage system.

7. (original) The method according to claim 1, wherein the redundancy information is based on a Reed-Solomon code.

8. (original) The method according to claim 1, wherein the redundancy information is an XOR-based code.

9. (original) The method according to claim 1, wherein the redundancy information is a one-dimensional parity.

10. (original) The method according to claim 1, wherein the storage unit is a hard disk drive.

11. (original) The method according to claim 1, wherein the storage unit is an optical drive.

12. (original) The method according to claim 1, wherein the storage unit is a random access memory.

13. (currently amended) The method according to claim 1, wherein the n data information disk sectors and the c redundancy information disk sectors are written consecutively.

14. (currently amended) The method according to claim 1, wherein the n data information disk sectors and the c redundancy information disk sectors are intermingled when written.

15. (currently amended) The method according to claim 1, further comprising:
receiving n data information disk sectors; and
generating c redundant information disk sectors.

16. (currently amended) A storage medium having a recording format therein, the format comprising c redundancy information disk sectors that are associated with n data

information disk sectors to form a segment, the c redundancy information disk sectors being based on the n data information disk sectors, n and c being integer value numbers greater than zero, and the segment being stored on a single storage medium that is part of a single storage unit in an array of storage units in a RAID-configured storage system.

17. (original) The storage medium according to claim 16, wherein the RAID-configured storage system is configured as a RAID 6 storage system.

18. (original) The storage medium according to claim 16, wherein the RAID-configured storage system is configured as a RAID 5 storage system.

19. (original) The storage medium according to claim 16, wherein the RAID-configured storage system is configured as a RAID 51 storage system.

20. (original) The storage medium according to claim 16, wherein the RAID-configured storage system is configured as a RAID 3 + 3 storage system.

21. (original) The storage medium according to claim 16, wherein the RAID-configured storage system is configured as a RAID N + 3 storage system.

22. (original) The storage medium according to claim 16, wherein the redundancy information is based on a Reed-Solomon code.

23. (original) The storage medium according to claim 16, wherein the redundancy information is an XOR-based code.

24. (original) The storage medium according to claim 16, wherein the redundancy information is a one-dimensional parity.

25. (original) The storage medium according to claim 16, wherein the storage unit is a hard disk drive.

26. (original) The storage medium according to claim 16, wherein the storage unit is an optical drive.

27. (original) The storage medium according to claim 16, wherein the storage unit is a random access memory.

28. (currently amended) The storage medium according to claim 16, wherein the n data information disk sectors and the c redundancy information disk sectors are in a consecutive arrangement.

29. (currently amended) The storage medium according to claim 16, wherein the n data information disk sectors and the c redundancy information disk sectors are in an intermingled arrangement.

30. (currently amended) A storage system, comprising:
an array controller; and
a plurality of storage units coupled to the array controller, the storage units being configured in a RAID configuration, and at least one data segment being stored on at least one storage unit, each data segment including n data information disk sectors and c redundancy information disk sectors, the c redundancy information disk sectors being based on the n data information disk sectors, and n and c being integer value numbers greater than zero.

31. (original) The storage system according to claim 30, wherein the storage system is configured as a RAID 6 storage system.

32. (original) The storage system according to claim 30, wherein the storage system is configured as a RAID 5 storage system.

33. (original) The storage system according to claim 30, wherein the storage system is configured as a RAID 51 storage system.

34. (original) The storage system according to claim 30, wherein the storage system is configured as a RAID 3 + 3 storage system.

35. (original) The storage system according to claim 30, wherein the storage system is configured as a RAID N + 3 storage system.

36. (original) The storage system according to claim 30, wherein the redundancy information is based on a Reed-Solomon code.

37. (original) The storage system according to claim 30, wherein the redundancy information is an XOR-based code.

38. (original) The storage system according to claim 30, wherein the redundancy information is a one-dimensional parity.

39. (original) The storage system according to claim 30, wherein the data segment is stored on at least one storage unit that is a hard disk drive.

40. (original) The storage system according to claim 30, wherein the data segment is stored on at least one storage unit that is an optical drive.

41. (original) The storage system according to claim 30, wherein the data segment is stored on at least one storage unit that is a random access memory.

42. (currently amended) The storage system according to claim 30, wherein the n data information disk sectors and the c redundancy information disk sectors are in a consecutive arrangement.

43. (currently amended) The storage system according to claim 30, wherein the n data information disk sectors and the c redundancy information disk sectors are in an intermingled arrangement.